State of New Jersey
Board of Public Utilities
Two Gateway Center
Newark, NJ 07102

Mona Lee Mosser, Acting Director
Office of Clean Energy

Tel. # (973) 648-2891
Fax # (973) 648-2467

August 25, 2008

Mr. Alex Baker
ENERGY STAR® Lighting Program Manager
U.S. Environmental Protection Agency
Ariel Rios Building 6202J
1200 Pennsylvania Avenue
Washington, DC 20460

Re: ENERGY STAR Residential Light Fixture Specification 4.2

Dear Mr. Baker:

Thank you for the opportunity to comment on the recently released technical amendment to the ENERGY STAR RLF Specification 4.2. The New Jersey Clean Energy Program (NJCEP) has been a longtime supporter and implementer of ENERGY STAR specifications and programs. This has included strong support of the EPA ENERGY STAR RLF specification. Through our programs and initiatives, we have helped bring thousands of RLF qualifying fixtures into the NJ market. We will continue to support the RLF specification for fluorescent light fixtures.

The opportunity that lies before us with solid-state lighting (SSL) technology is unprecedented. Never before have we had a new lighting technology with such widespread potential to reduce both energy use and pollution. In the most accelerated of scenarios, SSL lighting has the potential to save more than 3.5 quads of

electricity by 2025, eliminating the need for the construction of as many as 41 1000-MW power plants[1]. Given the challenges of high energy prices, energy security, and global warming for our country and the future, this potential must be realized.

With this said, we are very concerned that the EPA RLF 4.2 specification might not achieve this potential. We believe the EPA specification is likely to cause confusion in the marketplace, damage the ENERGY STAR brand, and ultimately slow the adoption of the SSL technology. Because of this, NJCEP cannot support the ENERGY STAR RLF 4.2 Specification for SSLs.

The following comments highlight both our process-related concerns and our concerns regarding the technical deficiencies of the EPA RLF 4.2 specification.

Process Comments

We suggest the release of the specification without an open public review process with stakeholders and without a reasonable lead time is inconsistent with EPACT 2005, Section 131 (5) and (7): "The Administrator and Secretary shall… solicit comments from interested parties prior to establishing or revising an Energy Star product category, specification, or criterion" and " provide appropriate lead time (which shall be 270 days, unless the Agency or Department specifies otherwise) prior to the applicable effective date for a new or significant revision to a product category, specification, or criterion."[2] We believe it is clear that for any specification revision, an open review process with stakeholders is required.

Technical Comments

Technically, the specification overlaps with the previously released DOE ENERGY SSL 1.0 specification. The previously released and final DOE specification scope was "for SSL products used for general illumination, including those with significant decorative function. If a decorative SSL product serves a significant general illumination function, it falls within the scope of these criteria. The criteria apply to both residential and commercial products.[3]"

The EPA specification is duplicative in that it addresses these same decorative products. This might be workable, except that the EPA specification uses completely different requirements and testing standards, which we suggest will cause undue market confusion. We support a single specification to guide manufacturers and consumers as they manufacture, distribute, sell, and purchase solid-state lighting products.

Additionally, NJCEP has specific concerns with technical components of the specification.

- **Testing Method** – The EPA RLF 4.2 specification uses the ASSIST Recommends testing method developed by the ASSIST project, and funded by the EPA and several other industry sponsors. We thank the EPA and other industry sponsors for funding this work at the Lighting Research Center. We believe the ASSIST testing methods will have a role in the future of SSL lighting. However, the

[1] Energy Savings Potential of Solid State Lighting in General Illumination Applications, US Department of Energy, November 2003 (http://www.netl.doe.gov/ssl/pdfs/SSL%20Energy%20Savi_ntial%20Final.pdf).
[2] H.R.6 EPACT 2005, Section 131, US Congress. (http://fossil.energy.gov/epact/epact_final.pdf).
[3] ENERGY STAR Requirements for Solid State Luminaires – Version 1.0, 2007, US Department of Energy.

- ASSIST testing method has not been reviewed, approved, or adopted by key industry organizations involved in the testing of lighting, including IESNA. We feel this represents a dangerous departure from industry standards. The lighting industry has relied on the IESNA to define testing standards for lighting for more than 20 years. The open consensus-based process used by the IESNA has resulted in testing methods that are accepted and used industry wide. NJCEP would be highly reluctant to support any specification that uses a testing standard that is not reviewed, approved, and adopted as an IES testing standard.

- **Minimum Light Output and Color Temperature** – By allowing low light output fixtures, and very cool color temperature products to meet the EPA RLF specification, EPA has allowed products that might not meet consumer expectations to carry the ENERGY STAR label[4]. Amplifying this problem is the fact that low light output and cool color temperature LED products are far less expensive than high output and warm colored LED products. As we know the impact of cost and price on the lighting market, many manufacturers will be producing product for the lowest cost that meets the specification. These least expensive products will be low-output, cool colored LED products, some of them delivering no more light than flashlights, and in a color that will not meet consumer expectations, carrying the ENERGY STAR label. These products could easily lead to poor consumer first impressions, damage the ENERGY STAR brand, and slow acceptance of the technology in the marketplace.

  EPA's response to these concerns in a letter to the CEE is that EPA will monitor products and "if RLF Partners are found to be straying from their evident understanding of consumer color preference to attempt qualification of high CCT, low light output products, EPA will intervene."[5] This approach appears to be both inefficient and impractical. As the ENERGY STAR program has learned in the past, disqualifying products and removing them from store shelves after they have been distributed is a highly problematic strategy. These issues can easily and most efficiently be addressed by including them in the specification.

Regrettably, for all of the reasons provided above, we urge you to withdraw the EPA proposed RLF specification.

With the energy challenges faced by our country, we need a single specification to guide consumer choices and bring the LED technology into the marketplace in a way that will maximize the opportunity before us. When we have two government agencies failing to work together, as EPA has done by releasing an overlapping specification with DOE, it is both unproductive and inefficient. We urge EPA to act in the best interest of our energy future and our national interest in bringing this important technology to market.

[4] Compact Fluorescent Lighting in America: Lessons Learned on the Way to Market, US Department of Energy, June 2006 (http://www.netl.doe.gov/ssl/PDFs/CFL%20Lessons%20Learned%20-%20web.pdf).
[5] EPA Response to CEE RLF 4.2 Comments (http://img.ledsmagazine.com/objects/news/5/7/11/EPA.pdf).

Should you wish to discuss our comments, please do not hesitate to call.

Sincerely,

Mona Lee Mosser

Mona Lee Mosser
Acting Director